

**IMPLEMENTATION AND MONITORING PLAN FOR
RESTORATION PROJECTS**

**OLD RIVER SOUTH WATER FLOW ENHANCEMENT STRUCTURES
RESTORATION PROJECT**

LOWER NECHES WILDLIFE MANAGEMENT AREA

**OLD RIVER SOUTH ESTUARINE MARSH COMPLEX
AND COASTAL WET PRAIRIE
RESTORATION PROJECT**

LOWER NECHES WILDLIFE MANAGEMENT AREA

**JEFFERSON COUNTY WETLANDS RESTORATION PROJECT
J.D. MURPHREE WILDLIFE MANAGEMENT AREA**

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- A. General location of the three Restoration Projects
- B. Conceptual design drawings and location of the J.C. Wetlands Restoration Project
- C. Conceptual design drawings and location of the Old River South ("ORS") Water Control Structures Restoration Project
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IMPLEMENTATION AND MONITORING PLAN FOR RESTORATION PROJECTS

I. Introduction

1. This document (hereinafter identified as the Implementation Plan) describes the construction, monitoring, and reporting requirements for the Old River South ("ORS") Water Flow Enhancement Structures Restoration Project at the Lower Neches Wildlife Management Area, the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project at the Lower Neches Wildlife Management Area, and the Jefferson County ("J.C.") Wetlands Restoration Project at the J.D. Murphree Wildlife Management Area to be performed in Southeast Texas pursuant to the settlement of natural resource damage claim in United States of America and the State of Texas v. Chevron U.S.A. Inc., et al. The terms of this settlement are contained within a consent decree (the "Consent Decree" or "Decree") and this Plan is incorporated by reference therein and is an attachment to the Decree. Unless otherwise expressly provided herein or in the Consent Decree, terms used in this Plan which are defined in CERCLA, 42 U.S.C. § 9601 et seq., or in regulations promulgated under CERCLA, 43 C.F.R. Part 11 and 40 C.F.R. Part 300, shall have the meaning assigned to them in CERCLA or in such regulations.

II. Description of Restoration Projects

2. The J.C. Wetlands Restoration Project, the Old River South ("ORS") Water Flow Enhancement Structures Restoration Project, and the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project are located in Texas Parks and Wildlife Department ("TPWD") wildlife management areas ("WMAs"), owned and managed by the TPWD, a signatory to the Consent Decree. The J.C. Wetlands Restoration Project is located in the J.D. Murphree WMA

near the City of Port Arthur, Jefferson County, Texas. The ORS Water Flow Enhancement Structures Restoration Project and the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project are located on the ORS Restoration Site, which is in the Lower Neches WMA adjacent to Sabine Lake near Bridge City, Orange County, Texas. The general location of the Restoration Projects is depicted on Exhibit A, attached hereto.

3. J.C. Wetlands Restoration Project. The J.C. Wetlands Restoration Project is designed to restore and enhance the moist soil management capabilities in marsh compartments 8 and 9 of the J.D. Murphree WMA by improving the existing TPWD system of managing water levels within the wetland management compartments. The project consists of the construction of two (2) water flow enhancement structures and a low terrace berm with an adjacent ditch and the plugging of an existing ditch in the project area, as more fully depicted on Exhibit B, attached hereto. The depth of these structures shall be approved by the Trustees after Settling Defendants provide information about site conditions, based on visual observation and/or a survey.

4. ORS Restoration Site. The following two (2) Restoration Projects will be undertaken at the ORS Restoration Site:

a. The ORS Water Flow Enhancement Structures Restoration Project, which consists of improving the existing ORS tidal hydrologic water features by constructing a low water plug and eight culverts, which will be placed along Lake Street, as more fully depicted in Exhibit C.

b. The ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project, which consists of the construction of a marsh complex including the planting of vegetation to create at least 85 acres of estuarine wetlands (the "Estuarine Marsh Complex"), and

the construction and planting of vegetation to create approximately 30 acres of coastal wet prairie (the "Coastal Wet Prairie"), as generally depicted on Exhibit D.

III. Construction Requirements

A. Construction Criteria.

5. J.C. Wetlands Restoration Project. This Restoration Project shall be constructed with the materials and specifications contained in the conceptual design drawings, attached hereto as Exhibit B.

6. ORS Restoration Site. The ORS Restoration Site shall consist of at least 115 acres of which at least 85 acres will be Estuarine Marsh Complex and the remainder will be Coastal Wet Prairie.

7. ORS Water Flow Enhancement Structures Restoration Project. This Restoration Project shall be constructed with the materials and specifications contained in the conceptual design drawings, attached hereto as Exhibit C.

8. The ORS Estuarine Marsh Complex. The ORS Estuarine Marsh Complex shall be constructed in accordance with the construction design drawing in Exhibit E and in accordance with the following Construction Criteria:

- a. The estuarine marsh shall consist of a minimum of 60% and a maximum of 70% vegetated Mounds and Terraces;
- b. The estuarine marsh shall consist of a minimum of 30% and a maximum of 40% open water;
- c. For the Estuarine Marsh Complex, Mounds will be built by reusing stockpiled dredge material from the containment cells located between the Gulf States Utility canal and the ORS marsh complex, and Terraces will be built by terracing existing sediments in open water areas; if necessary

other sources of appropriate sediments will be used once approved by the TPWD Manager of the Lower Neches WMA.

- d. The top of the Mounds and the resulting planting area shall be between 1.1 feet and 1.75 feet NAVD88. These required maximum and minimum elevations may be altered by agreement of the Trustees and Settling Defendants, based on vegetation elevation data taken after construction of the low water plug and using the vegetation data from the ORS Pilot Project;
- e. The top of Terraces and the resulting planting area shall be between 1.75 feet and 2.75 feet NAVD88. These required maximum and minimum elevations may be altered by agreement of the Trustees and Settling Defendants, based on vegetation elevation data taken after construction of the low water plug and using the vegetation data from the ORS Pilot Project;
- f. The Mounds and Terraces shall be randomly distributed to allow for continuous and unobstructed water movement generally in accordance with the construction design drawing in Exhibit E;
- g. The Mounds will have a range of linear widths so that the distance across the estuarine planting area is no less than 10 meters and no more than 40 meters. The Terraces will have a linear width so that the distance across the planting area of each Terrace is no more than 40 meters.
- h. The total acreage of the Estuarine Marsh Complex, inclusive of Mounds and Terraces, shall be at least 85 acres, with between 60% and 70% of the Marsh Complex at the elevations described for Mounds in Subparagraphs 8.d and for Terraces in Subparagraph 8.e. If additional marsh is created, it may be used to offset on a 1:1 basis the amount of required Coastal Wet Prairie, as described in ¶ 9(c) below; and
- i. The Mounds and Terraces constructed for the Estuarine Marsh Complex shall be planted using approximately 4-inch plugs of nursery-grown, purchased, and/or borrowed estuarine marsh plants and shall be planted on 3 to 5 foot centers, including at a minimum the plant species listed in Exhibit F.

9. ORS Coastal Wet Prairie. The ORS Coastal Wet Prairie shall be constructed in accordance with the construction design drawing in Exhibit E and in accordance with the following Construction Criteria:

- a. The elevations of the Coastal Wet Prairie will be between 1.2 feet and 2.1 feet NAVD88;
- b. The GSU Canal Levee Road will be maintained and preserved as a road;
- c. The Coastal Wet Prairie shall consist of approximately 30 acres at the elevations described in Paragraph 9.a, or the acreage may be reduced proportionally to any increase in the Marsh Complex acreage that exceeds the 85 acres required at Paragraph 8.h; and
- d. The Coastal Wet Prairie shall be planted using approximately 4-inch plugs of nursery-grown, purchased, and/or borrowed estuarine marsh plants and shall be planted on 3 to 5 foot centers, including at a minimum the plant species listed in Exhibit F.

B. Construction Planning.

10. Permit Applications. Within six months of the Entry of the Consent Decree, the Settling Defendants shall submit to the appropriate regulatory authorities applications for all permits required for the construction of the Restoration Projects, and Settling Defendants shall submit to the Trustees a list of the permits that have been sought and shall certify that all required applications have been filed with the appropriate regulatory authorities.

11. J.C. Wetlands Restoration Project. At least five (5) days before beginning construction of the J.C. Wetlands Restoration Project, Settling Defendants shall submit to the Trustees a notice describing its construction schedule, including, at a minimum, the first day construction will begin on the first water flow enhancement structure and the estimated

completion date for construction of the last water flow enhancement structure at the Restoration Project.

12. ORS Water Flow Enhancement Features Restoration Project. At least five (5) days before beginning construction of the ORS Water Flow Enhancement Structures Restoration Project, Settling Defendants shall submit to the Trustees a notice describing their construction schedule, including, at a minimum, the first day construction will begin on the first water flow enhancement structure and the estimated completion date for construction of the last water flow enhancement structure at the Restoration Project.

13. ORS Estuarine Marsh Complex and Wet Prairie Restoration Project. At least thirty (30) days before beginning construction of the ORS Estuarine Marsh Complex and Wet Prairie Restoration Project, Settling Defendants shall submit to the Trustees a notice describing its construction schedule, including the first day construction will begin and the estimated completion date for construction of the Restoration Project, along with Settling Defendants' Planting Schedule for the Restoration Project.

C. Notice of Construction Completion.

14. J.C. Wetlands Restoration Project. Within 14 days after completion of the last water flow enhancement structure, Settling Defendants shall submit to the Trustees a Notice of Construction Completion, informing them that construction of the J.C. Wetlands Restoration Project has been completed, and it shall provide a certification by a professional engineer establishing that the Restoration Project was constructed in accordance with the materials and specifications described in Exhibit B.

15. ORS Water Flow Enhancement Features Restoration Project. Within 14 days after completion of the last water flow enhancement structure, Settling Defendants shall submit to the Trustees a Notice of Construction Completion, informing them that construction of the ORS Water Flow Enhancement Features Restoration Project has been completed, and it shall provide a certification by a professional engineer establishing that the Restoration Project was constructed in accordance with the materials and specifications described in Exhibit B.

16. ORS Estuarine Marsh Complex and Wet Prairie Restoration Project. At least fourteen (14) days prior to the date that Settling Defendants will complete the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project ("Project Construction Completion Date"), Settling Defendants shall provide notice of the Project Construction Completion Date and preliminary "as-built" surveys (with spatial configurations of the planting area and elevations of constructed Mounds and Terraces) and aerial photography to show that the Restoration Project will meet the Construction Criteria .

D. Construction Review.

17. Trustee Review Schedule.

a. J.C. Wetlands Restoration Project. Within three (3) work days after the Construction Completion Date specified in the notice for the J.C. Wetlands Restoration Project or within three (3) work days after receipt of that notice, whichever is later, the Trustees shall inspect the Restoration Project ("the Inspection Date").

b. ORS Water Flow Enhancement Features Restoration Project. Within three (3) work days after the Construction Completion Date specified in the notice for the ORS Water Flow Enhancement Features Restoration Project or within three (3) work days after receipt of

that notice, whichever is later, the Trustees shall inspect the Restoration Project (“the Inspection Date”).

c. ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project.

Within three (3) work days after the Project Construction Completion Date specified in the notice for the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project or within three (3) work days after receipt of that notice, whichever is later, the Trustees shall inspect the completed Restoration Project (the “Inspection Date”). On the Inspection Date, Settling Defendants shall provide the final as-built survey and all other documentation needed to establish that it has achieved the Construction Criteria.

18. Trustee Review Procedure for All Restoration Projects.

a. To the extent that the Trustees have determined that the Settling Defendants have not achieved the Construction Criteria described in Section III.A, or that Settling Defendants have not provided the documentation needed for the Trustees to determine whether the Settling Defendants have achieved the Construction Criteria, the Trustees will provide preliminary oral notice of these circumstances to the Settling Defendants upon completion of the inspection on the Inspection Date. Within seven (7) days after the Inspection Date, the Trustees shall provide to Settling Defendants a written description of the deficiencies. The Trustees and Settling Defendants shall meet within twenty-one (21) days after the Inspection Date, or the date of receipt of any missing information, whichever is later. Within seven (7) days after the meeting, the Trustees shall provide in writing to Settling Defendants a schedule for achieving the failed Construction Criteria, or if the Trustees have obtained satisfactory information to establish that the applicable standards have been achieved, the Trustees will issue the Certification of

Construction Completion. If the deficiency has not been corrected, Settling Defendants shall modify the construction of the deficient Restoration Project pursuant to the schedule, and Settling Defendants and the Trustees shall again inspect the Restoration Project and follow the process described in this Paragraph until the applicable Construction Criteria have been achieved.

b. If the Trustees have determined that the Settling Defendants have achieved the applicable Construction Criteria for the applicable Restoration Project on the Inspection Date, then the Trustees will provide preliminary oral notice to the Settling Defendants upon completion of the inspection of the Restoration Project on the Inspection Date, and within seven (7) days after the Inspection Date the Trustees shall issue to Settling Defendants a written Certification of Construction Completion for the Restoration Project.

19. No later than two (2) years after issuance of the last required permit authorizing construction of the Restoration Projects, Settling Defendants shall submit to the Trustees all information or documentation necessary for the Trustees to establish that construction has been completed at all of the Restoration Projects in accordance with the Construction Criteria described in Section III.A.

20. Settling Defendants shall have no further obligations at the J.C. Wetlands Restoration Project after the Trustees issue the Certification of Construction Completion.

21. Except as provided for in Paragraphs 23.b and 30.d, Settling Defendants shall have no further obligations at the ORS Water Flow Enhancement Structures Project after the Trustees issue the Certification of Construction Completion for that Restoration Project, but in no event shall any obligation extend beyond the date of issuance by the Trustees of the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project Completion Certification.

22. Pursuant to Section IV. (Monitoring Requirements), Settling Defendants shall monitor the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project after the Trustees issue the Certification of Construction Completion for this project, and they shall continue to monitor the Project until Settling Defendants have met the requirements of Paragraphs 28 and 29.

IV. Monitoring Requirements

A. Monitoring Criteria.

23. The following Monitoring Criteria shall apply to the Estuarine Marsh Complex at the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project:

a. Vegetation Criteria

- i. Attain an average vegetative cover of 70% over the planted vegetative area;
- ii. Attain no less than 50% vegetative cover on each Mound and Terrace;
- iii. Maintain a minimum of 51 acres at the elevations described for Mounds in Subparagraphs 8.d and for Terraces in Subparagraph 8.e.; and
- iv. Eliminate all Chinese tallow and salt cedar.

b. **Water Criteria.** Maintain at least 70% unobstructed wet flow at mean low tide in the constructed culverts between the ORS Restoration Site and the historic Old River Bayou, and maintain existing natural channels in the ORS Estuarine Marsh Complex in an open and unobstructed condition, as generally depicted in the construction design drawing in Exhibit E.

24. The following Vegetation Monitoring Criteria shall apply to the Coastal Wet Prairie at the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project:

- a. Attain an average vegetative cover of 70% over the entire area of the Coastal Wet Prairie (excluding the GSU Canal Levee Road);
- b. Attain no less than 50% vegetative cover in any 1,000 square meter area (excluding the GSU Canal Levee Road), unless a lesser percentage is specifically approved by the Trustees;
- c. Eliminate all Chinese tallow and salt cedar;
- d. Control Johnson grass, vasey grass, and shrubs (e.g. rattlebush, wax myrtle and seamyrtle) so they comprise no more than 30% of the total vegetative cover;
- e. Inspect and remove deep rooted sedge, upon identification, for two (2) years after the completion of the Wet Prairie planting.

B. Grow Out Period.

25. Upon issuance of the Certification of Construction Completion for the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project, Settling Defendants shall commence monitoring of the Project, in accordance with the monitoring methods specified in Section VI, to determine whether the Monitoring Criteria will be achieved and whether Corrective Action should be undertaken. This monitoring shall continue until Settling Defendants achieve the Monitoring Criteria specified in Section IV.A.

26. Settling Defendants may monitor the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project at any time; however, during the Grow Out Period Settling Defendants must monitor the Restoration Project in accordance with the following schedule, at a minimum:

- a. In September/October of each year after the first growing season, Settling Defendants shall monitor the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project to determine the status of the Monitoring Criteria listed in Section IV.A; and

- b. If Settling Defendants have not achieved the Monitoring Criteria by October 31 of the second growing season after the issuance of the Certification of Construction Completion, or by October in any subsequent growing season, Settling Defendants shall arrange an inspection with the Trustees to be conducted in November to determine whether Corrective Action should be undertaken by Settling Defendants in accordance with the procedures specified in Section V.

27. No earlier than one (1) year after issuance of the Certification of Construction Completion for the ORS Marsh Complex and Wet Prairie Restoration Project or at any time thereafter, if the Settling Defendants conclude that they have achieved the Monitoring Criteria specified in Section IV.A, Settling Defendants shall arrange an inspection with the Trustees. Within 30 days after the date of the inspection, Settling Defendants shall provide a Grow Out Report to the Trustees, documenting, in accordance with the monitoring methods specified in Section VI, that Settling Defendants have met the Monitoring Criteria. If the Trustees determine that Settling Defendants have achieved the Monitoring Criteria, the Trustees shall issue to Settling Defendants a written certification of completion (the "Grow Out Certification") for the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project, and the Maintenance Period, as described in Section IV.C, shall commence. If the Trustees determine that Settling Defendants have not achieved the Monitoring Criteria, the Trustees shall provide written notice within seven (7) days of receipt of the Grow Out Report, and the Parties shall follow the procedures outlined in Section V.C.

28. The Grow Out Period shall continue until Settling Defendants achieve the Monitoring Criteria specified in Section IV.A. and the Trustees issue the Grow Out Certification.

C. Maintenance Period.

29. Settling Defendants shall continue to monitor the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project, in accordance with the monitoring methods specified in Section VI, at least annually for at least two (2) consecutive years from the date of the issuance of the Grow Out Certification in accordance with the following procedures:

a. If during the Maintenance Period, monitoring conducted by Settling Defendants and the Trustees indicates that the Monitoring Criteria set forth in Section IV.A are not being achieved, Corrective Action, as described in Section V, shall be implemented by Settling Defendants. If Corrective Action is required for either the Estuarine Marsh Complex or the Coastal Wet Prairie, the Maintenance Period shall be extended by one (1) additional year for the affected portion of the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project. Regardless of the number of Corrective Actions undertaken, the Maintenance Period shall not exceed a total of three (3) years, inclusive of the initial two-year Maintenance Period. At the end of the Maintenance Period, Settling Defendants shall submit a Maintenance Report to the Trustees, documenting the status of Settling Defendants' compliance with the Monitoring Criteria in accordance with the monitoring methods specified in Section VI.

b. If Settling Defendants conclude that they have achieved the Monitoring Criteria specified in Section IV.A without undertaking a Corrective Action for two consecutive years after the issuance of the Grow Out Certification, Settling Defendants shall arrange an inspection(s) for Tier 1 and/or Tier 2 monitoring with the Trustees. Within 21 days after the final inspection date, Settling Defendants shall provide a Maintenance Report to the Trustees, documenting that Settling Defendants have met the Monitoring Criteria in accordance with the

monitoring methods specified in Section VI. If the Trustees determine that Settling Defendants have achieved the Monitoring Criteria, the Trustees shall issue to Settling Defendants the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project Completion Certification, and Settling Defendants shall have no further obligations under this Implementation Plan. If the Trustees' determine that Settling Defendants have not achieved the Monitoring Criteria, the Trustees shall provide written notice within seven (7) days of receipt of the Maintenance Report, and the Parties shall follow the procedures outlined in Section V.C.

V. Corrective Action

A. Types of Corrective Actions.

30. If the Estuarine Marsh Complex or the Coastal Wet Prairie fails to meet the Monitoring Criteria during either the Grow Out Period or the Maintenance Period, Settling Defendants shall undertake one or more of the following Corrective Actions in order that the Monitoring Criteria may be achieved, subject only to the limits provided in Section V.B:

- a. Alter the elevation of the planting areas at the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project, or if agreed upon by both the Trustees and Settling Defendants, either construct planting shelves at a mutually acceptable location within the TPWD Lower Neches WMA, or replant vegetative species more suited to existing elevations;
- b. Replant estuarine marsh vegetation in the Estuarine Marsh Complex;
- c. Replant wet prairie vegetation in the Coastal Wet Prairie;
- d. Take actions to ensure the unobstructed flow of water in culverts, including removing the obstructions, e.g. sand, silt, logs, plywood, trash, or debris, and eliminating the cause of the obstruction;
- e. Remove Chinese tallow, deep rooted sedge, and/or salt cedar; and/or

- f. Remove undesirable plants that exceed the limits specified in Paragraph 24.d.

After consultation between the Trustees and the Settling Defendants, the Trustees may require or authorize an alternative Corrective Action before the Settling Defendants undertake a Corrective Action listed in a-d.

B. Limits on Corrective Actions.

31. Settling Defendants shall not be required to undertake Corrective Actions in excess of the following limits:

- a. Limit on Corrective Action for Elevation. If Settling Defendants fail to achieve the Vegetation Criteria specified in Section IV.A for the ORS Estuarine Marsh Complex after the issuance of the Certification of Construction Completion because of subsequent changes in the elevation, as indicated in a survey during the monitoring period, the Settling Defendants shall be required to alter the planting area elevation only once, and only after the first two years of the Grow Out Period, or after the issuance of the Grow Out Certification. In order to qualify for this Corrective Action limit, any elevation change must involve the one-time alteration of at least 10% of the constructed area of Mounds and Terraces in the ORS Estuarine Marsh Complex and at least 10% of the Coastal Wet Prairie.
- b. Limit on Corrective Action for Vegetation. If during the Maintenance Period, the Settling Defendants fail to achieve at least 50% vegetative cover on each Mound and Terrace in the planting areas of the ORS Marsh Complex that have been identified in the survey used for the Certification of Construction or at least 50% vegetative cover in the Wet Prairie, Settling Defendants shall not be required to replant more than the cumulative equivalent of 100% of the original area that was planted and certified. The 100% replanting limit shall apply only after the Trustees have issued the Grow Out Certification.
- c. Corrective Action Trigger for Culverts/ Natural Channels. Settling Defendants shall undertake Corrective Action when obstructed flow occurs within a culvert, or the existing natural channels leading up to the culvert, between the ORS Restoration Site and the historic Old River Bayou. "Obstructed flow" means the reduction of greater than 30% of the wet cross section of any culvert at mean low tide or when one or more natural channels leading up to and/or from the culvert is 100% blocked or silted up without an equivalent replacement channel(s) (either natural or man made) being created. The existing natural channels and

culverts subject to this corrective action trigger are identified in Exhibit G.

32. Settling Defendants shall have no further obligation to undertake a Corrective Action required in Paragraph 30.a through 30.d after the limit for that Corrective Action, as specified in Paragraph 31.a, 31.b, or 31.c has been met; however they shall undertake all other requirements specified by the Consent Decree and this Implementation Plan after the Corrective Actions limits specified in Paragraph 31.a, 31.b, and/or 31.c have been met.

C. Corrective Action Review Process.

33. Settling Defendants may undertake Corrective Actions described in Subparagraphs 30.e through f without providing prior notice to the Trustees.

34. Either Settling Defendants or the Trustees may provide written notice that a Corrective Action should be undertaken, except that the Trustees will not require a Corrective Action for an elevation change until after the first two years of the Grow Out Period or after the issuance of the Grow Out Certification.

35. Except as provided under Paragraph 33, Settling Defendants shall provide a Corrective Action Plan to the Trustees within ninety (90) days after Settling Defendants and/or the Trustees provide written notice that Corrective Action and a Corrective Action Plan are required at the ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project. The Corrective Action Plan shall include the following information, at a minimum:

a. Elevation Corrective Actions. An Elevation Corrective Action Plan shall include:

i. A description of the condition(s) or circumstance(s) to be addressed by the Corrective Action, including a map showing the affected area;

- ii. An analysis of the cause(s) for such condition(s) or circumstances(s);
- iii. The action(s) and or monitoring activities proposed to be undertaken to rectify, resolve, or otherwise address the condition(s) or circumstance(s);
- iv. Copies of any permits, leases, special use, or other agreements necessary to implement the proposed activities; and
- v. Any additional information requested by the Trustees after notification of the Elevation Corrective Action to be undertaken.

b. Vegetation Corrective Actions.

- i. Pre-Grow Out Certification. Prior to issuance of the Grow Out Certification and until Settling Defendants have planted 25% of the Corrective Action Vegetation Limit after issuance of the Grow Out Certification, Settling Defendants shall complete the Vegetation Corrective Action Plan form, attached hereto as Exhibit H, and no further review will be undertaken by the Trustees.
- ii. Post-Grow Out Certification. After the Trustees have issued the Grow Out Certification and Settling Defendants have planted more than 25% of the Corrective Action Vegetation Limit, Settling Defendants shall provide the following information in a Vegetation Corrective Action Plan:
 - (a) A description of the condition(s) or circumstance(s) to be addressed by the Corrective Action, including a map showing the affected area;
 - (b) An analysis of the cause(s) for such condition(s) or circumstances(s) necessitating the Corrective Action;
 - (c) The action(s) and or monitoring activities proposed to be undertaken to rectify, resolve, or otherwise address the condition(s) or circumstance(s), including, but not limited to, the information sought in Exhibit H; and
 - (d) Any additional information requested by the Trustees after notification of the Vegetation Corrective Action to be undertaken.

c. Culvert/Natural Channel Corrective Actions. A Culvert/Natural Channel Corrective Action Plan shall include:

- i. A description of the condition(s) or the circumstance(s) to be addressed by the Corrective Action;
- ii. An evaluation of the cause(s) for such condition(s) or circumstances necessitating the Corrective Action; and
- iii. The action(s) and or monitoring activities proposed to be undertaken to rectify, resolve, or otherwise address the condition(s) or circumstance(s) causing the blockage of the culvert(s) and or natural channel(s).

36. For all Corrective Action Plans, except any Vegetation Corrective Actions Plans prepared before Settling Defendants has planted 25% of the Corrective Action Vegetation Limit, within thirty (30) days of receipt of an adequate Corrective Action Plan, the Trustees will provide written notification either approving the Corrective Action Plan, or disapproving the Plan because the proposed Corrective Action is determined by the Trustees to be insufficient to fix the problems. If the Trustees approve the Corrective Action Plan, Settling Defendants shall undertake the action and/or monitoring activities in accordance with the approved Corrective Action Plan. If the Trustees do not approve the Corrective Action Plan, the Trustees shall provide to the Settling Defendants their written rationale for disapproving the Plan, and Settling Defendants shall provide a revised Plan to the Trustees within sixty (60) days of receipt of the Trustees' notice of disapproval.

37. For all Corrective Actions undertaken pursuant to Paragraph 30.a through 30.d, Settling Defendants shall submit a Corrective Action Report, describing their compliance with

the requirements of the Corrective Action Plan and providing written documentation establishing the results of the Corrective Action, within thirty (30) days of completion of the actions.

VI. Monitoring Methods

38. Settling Defendants shall determine if the Monitoring Criteria specified in Section IV.A have been or will be met by evaluating the following ORS Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project characteristics in accordance with the schedule specified in this Implementation Plan:

- a. Percent foliar cover;
- b. Growth of prohibited vegetation;
- c. Water flow and obstructions in the culverts and in the open water of the Marsh Complex and existence of natural channels; and
- d. Estimated ratio of marsh/open water.

39. Settling Defendants will use a two-tiered approach, as identified in the following paragraphs, to determine if the Monitoring Criteria are being met. No later than the date of Certification of Construction Completion, Settling Defendants and the Trustees shall agree to permanent monitoring transects and locations. Thereafter, field inspections conducted by the Trustees and Settling Defendants shall include, but not be limited to, walking along the established monitoring transects and locations.

40. Tier 1 monitoring will rely solely upon visual observations based on aerial photography and field inspections. If Settling Defendants and the Trustees do not reach a consensus after visual observations during inspections, the Parties will undertake Tier 2 monitoring.

41. Tier 2 monitoring requires a quantitative assessment of plant vegetative cover.

Settling Defendants shall conduct this assessment with the Trustees by undertaking a pilot monitoring effort with the goal of determining the variability of plant survival and percent cover within the project. Quadrants will be randomly distributed over the vegetative area with a minimum of 20 and a maximum of 30 sampling stations. After the pilot study has been completed, Settling Defendants will undertake quantitative sampling with an Alpha level of 0.2, and a study to determine the potential of measurement error.

VII. Reporting Requirements

42. Settling Defendants shall be required to provide notices and certifications regarding the following activities, at a minimum:

- a. Certification of filing of permit application;
- b. Commencement of construction;
- c. Projected date for completion of construction;
- d. Arrangements for inspections involving Trustees; and
- e. Corrective Action should be undertaken.

As appropriate, these notices can be prepared and submitted separately or combined in a single notice.

43. The Trustees will provide notices and/or Certifications pertaining to the following matters:

- a. Certification of Construction Completion for each of the three (3) Restoration Projects;
- b. Status of Monitoring Criteria;

- c. Grow Out Certification;
- d. Whether a Corrective Action will be required;
- e. The Corrective Action Plan(s);
- f. The Corrective Action Report(s);
- g. The Maintenance Report(s); and
- h. Certification of the Estuarine Marsh Complex and Coastal Wet Prairie Restoration Project.

44. Settling Defendants shall prepare the following reports in accordance with the requirements of this Implementation Plan:

- a. Construction Report(s);
- b. Annual Monitoring Report(s);
- c. Grow Out Report(s);
- d. Maintenance Report(s);
- e. Corrective Action Plan(s); and
- f. Corrective Action Report(s);

As appropriate these reports may be prepared and submitted separately or combined in a single report.

45. Settling Defendants shall include the following information in the Annual Monitoring Report:

- a. A description of all scheduled and unscheduled site visits;
- b. Any Corrective Actions not previously reported to the Trustees; and
- c. Observations and activities, including all documentation of the characteristics required to be monitored pursuant to Section VI.

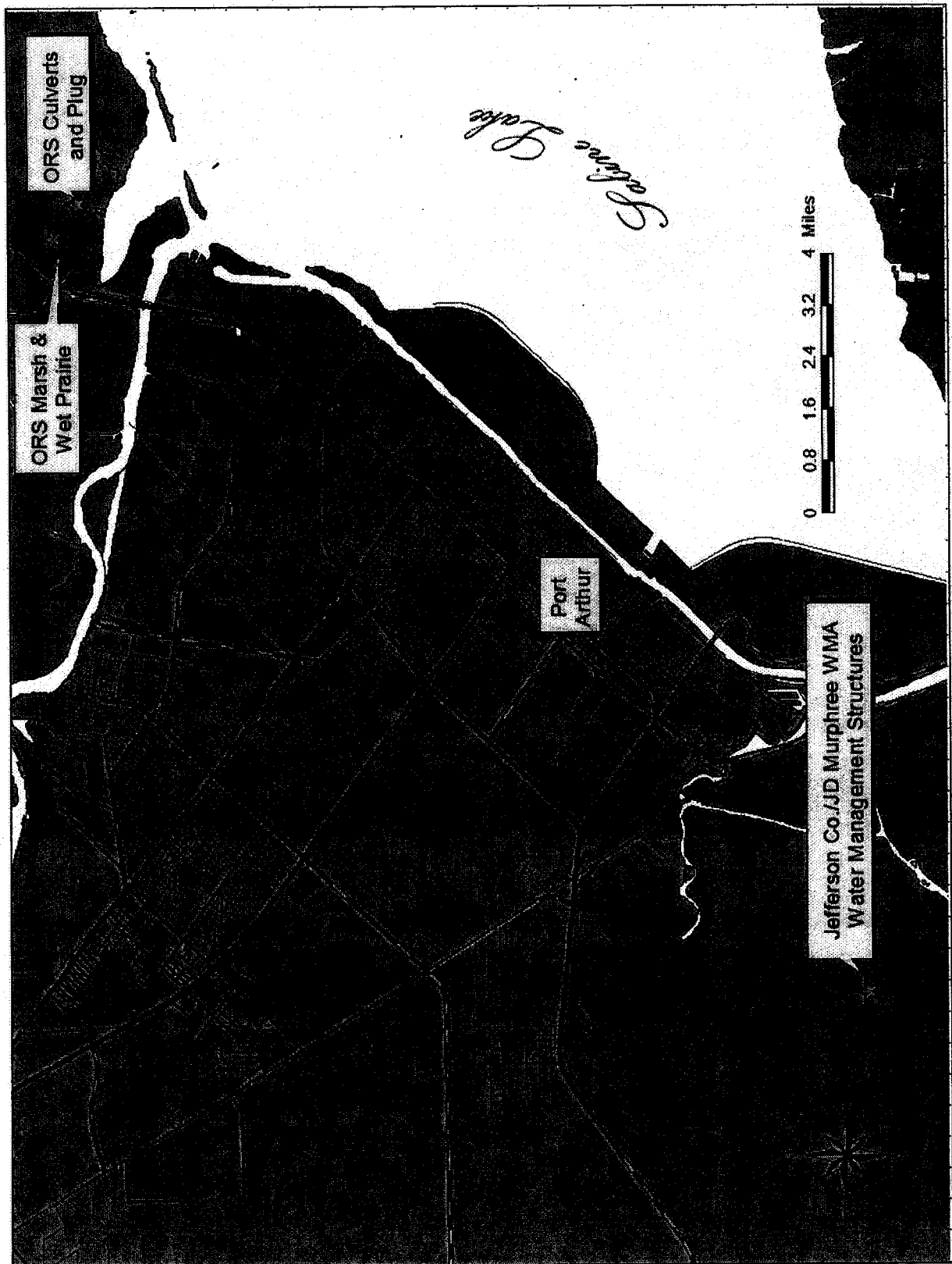


Exhibit A:
Restoration Project Locations in the Lower Neches River / Sabine Lake System

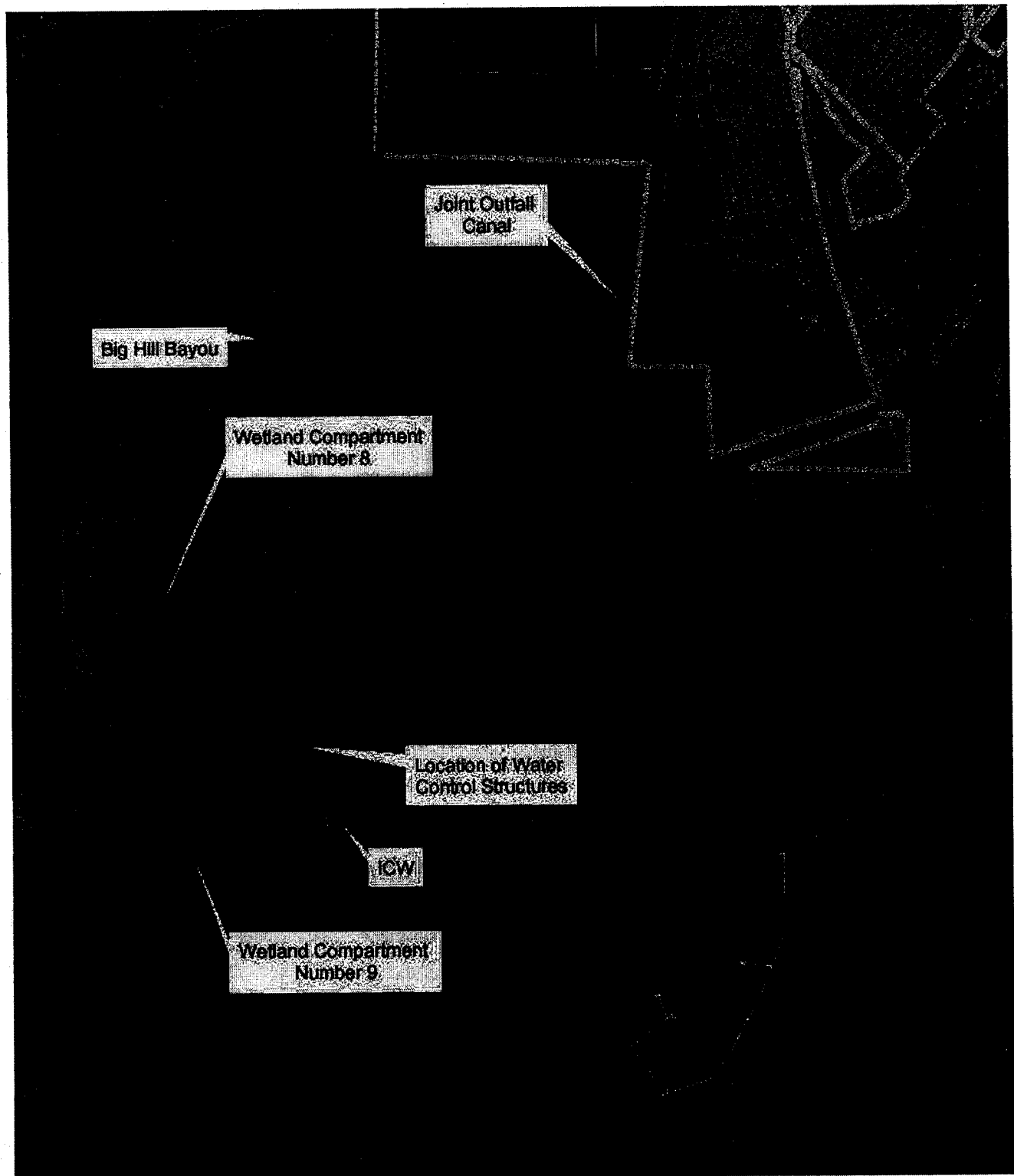


Exhibit B:
Location of the Jefferson County Wetlands Restoration Project (J.D. Murphree WMA)

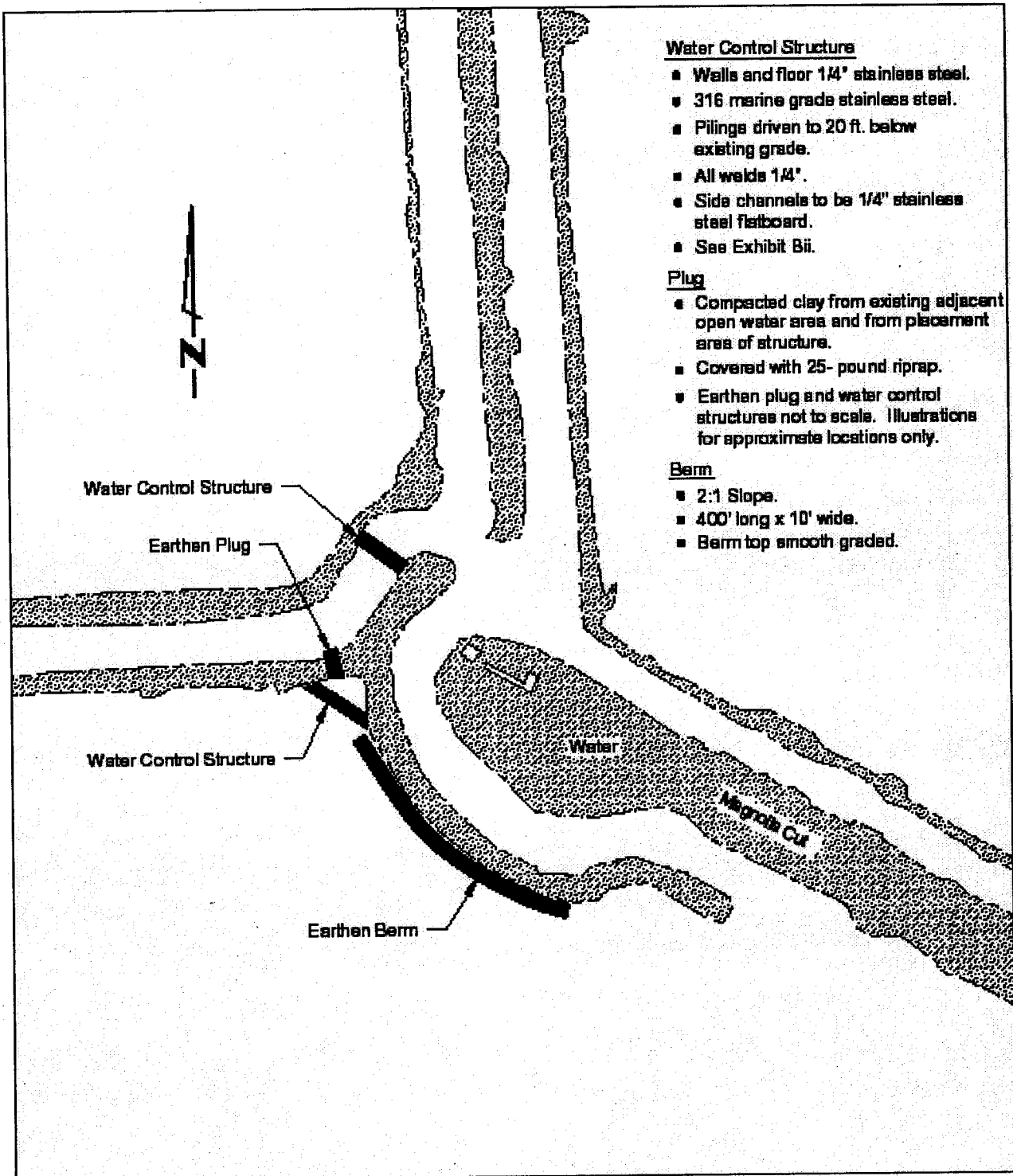


Exhibit B (i):

Inset Detail, Water Management Structural Improvements, Jefferson County Wetlands Restoration Project (J.D. Murphree WMA)

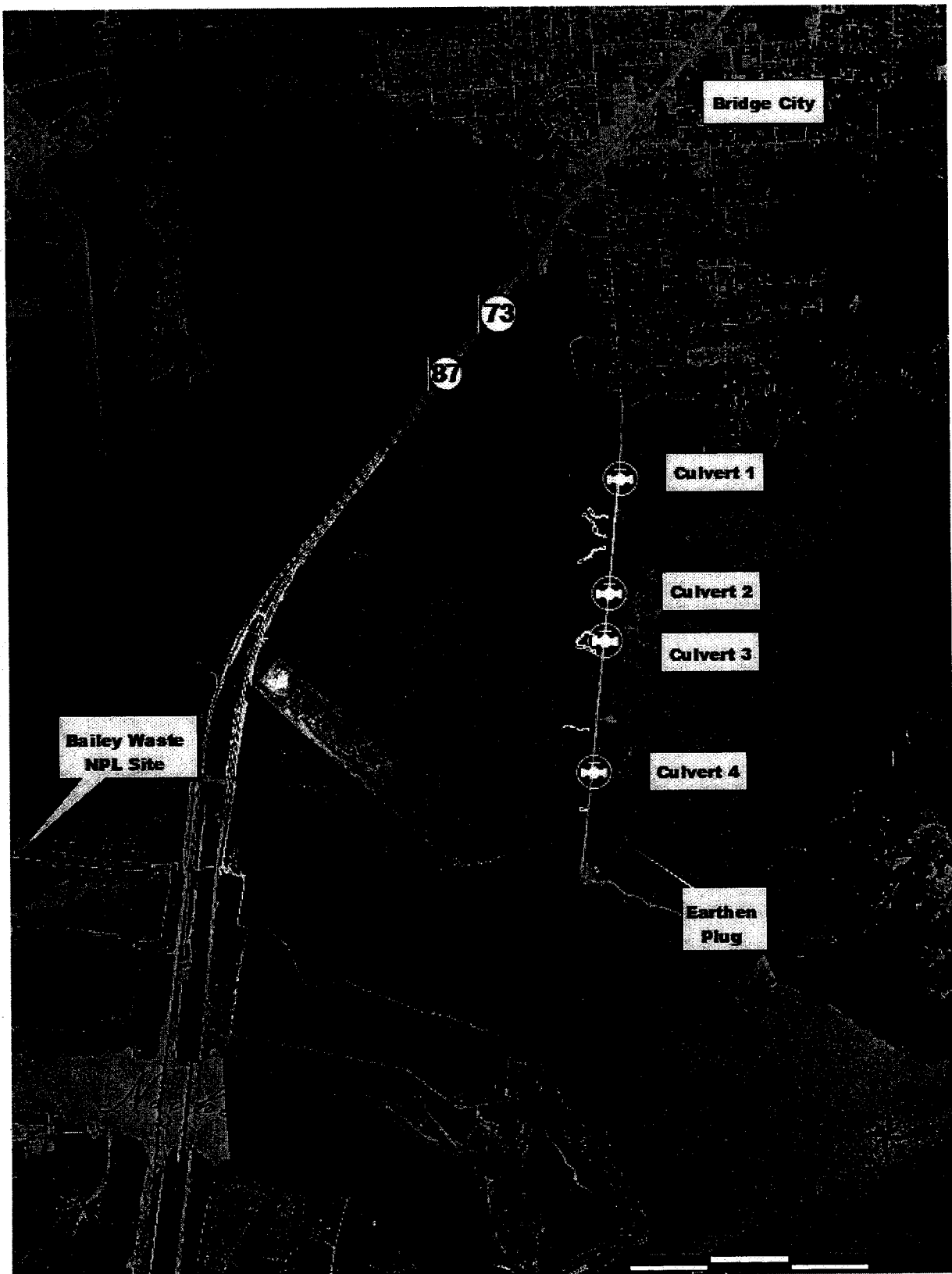


Exhibit C:

General Layout Ferry Road Water Control Structure and Culverts, Old River South ("ORS")
Water Management Structures Restoration Project.

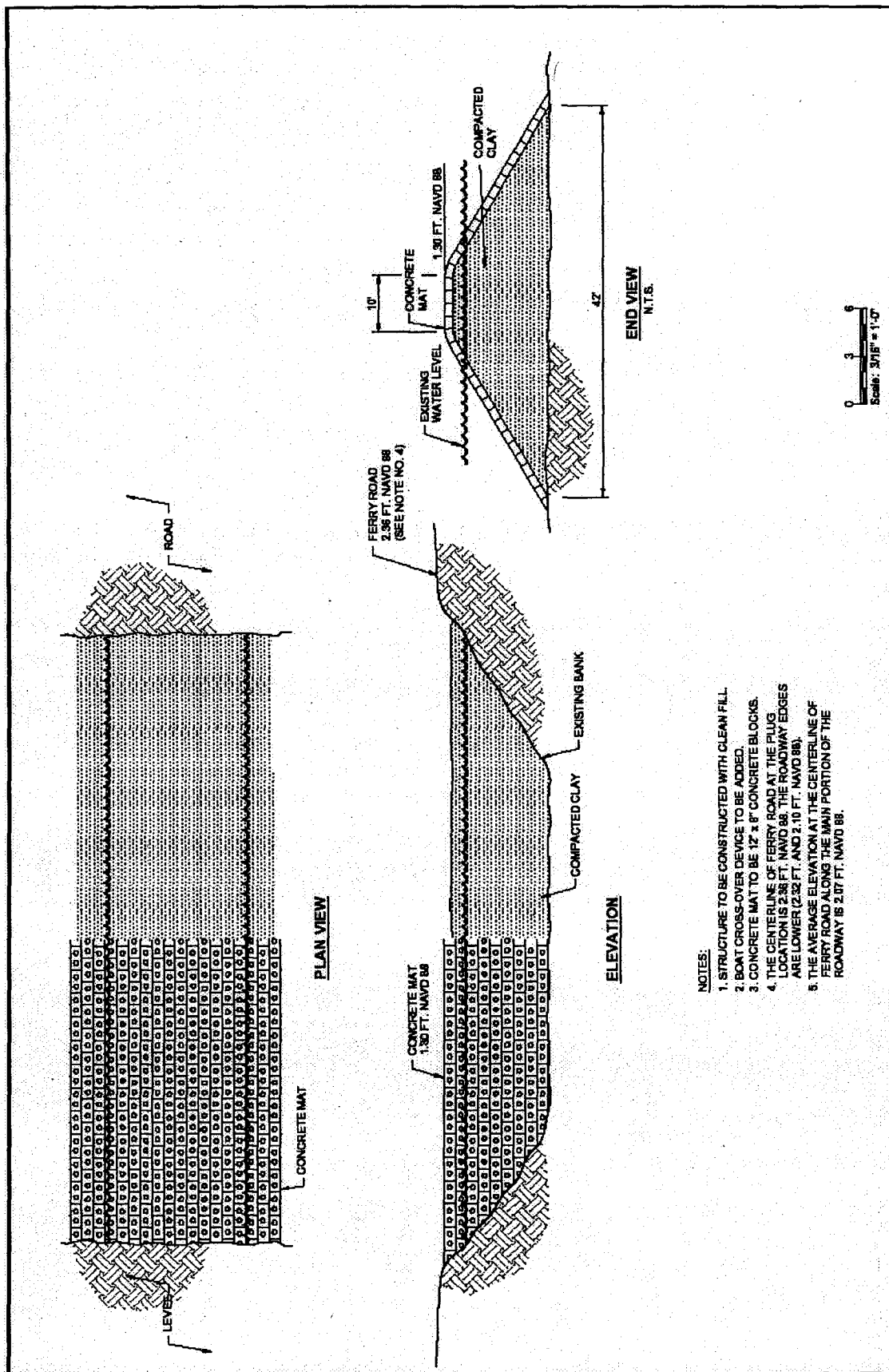


Exhibit C(i):
Detail - Ferry Road Water Control Structure (Earthen Plug), Old River South ("ORS") Water Management Structures Restoration Project,



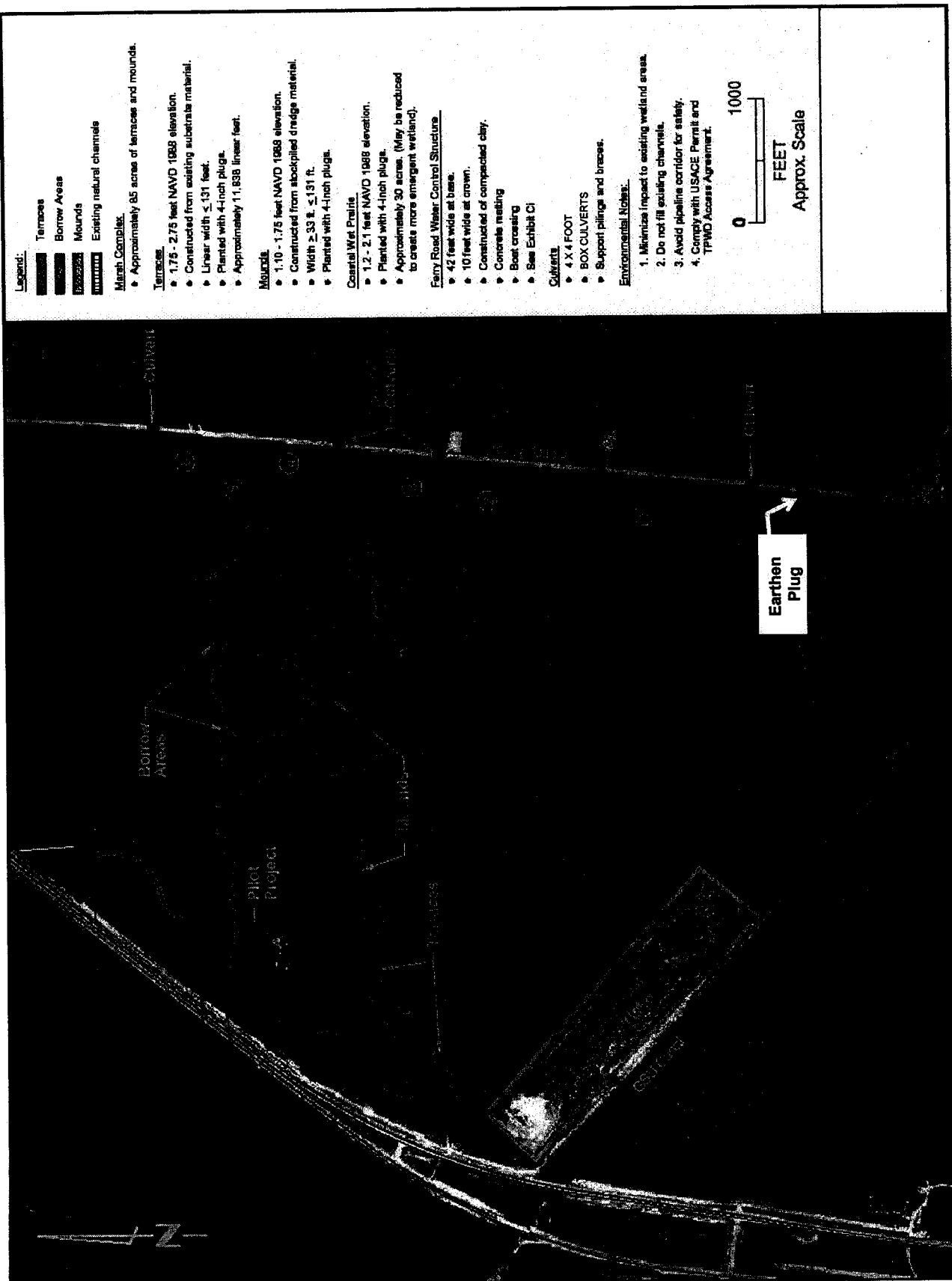


Exhibit D:

General description of the ORS Marsh Complex and Wet Prairie Restoration Project

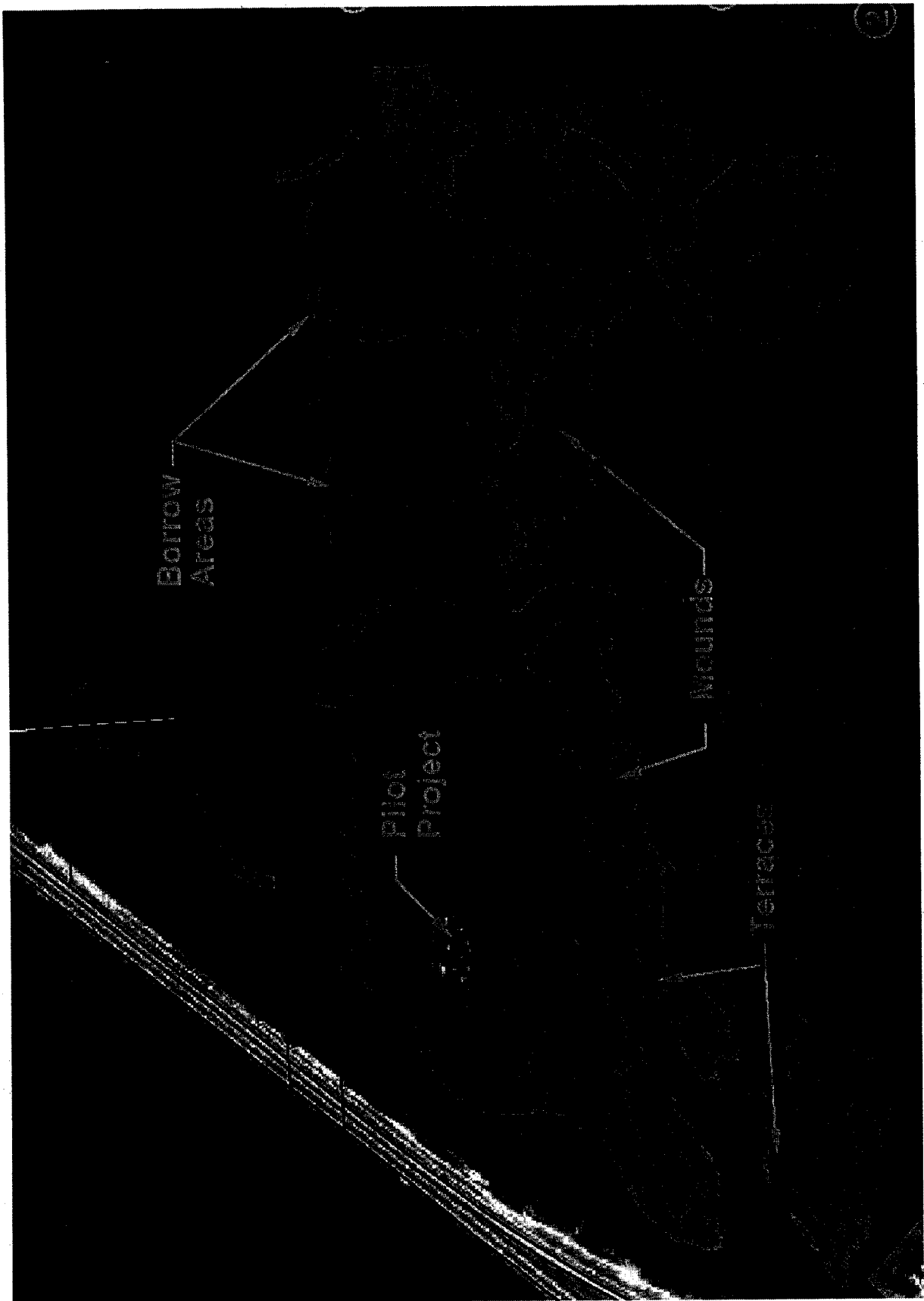
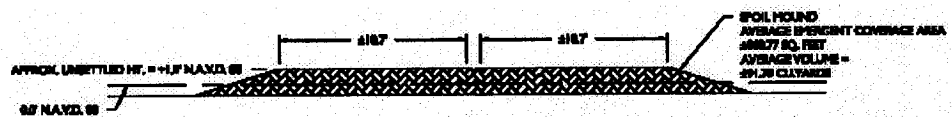
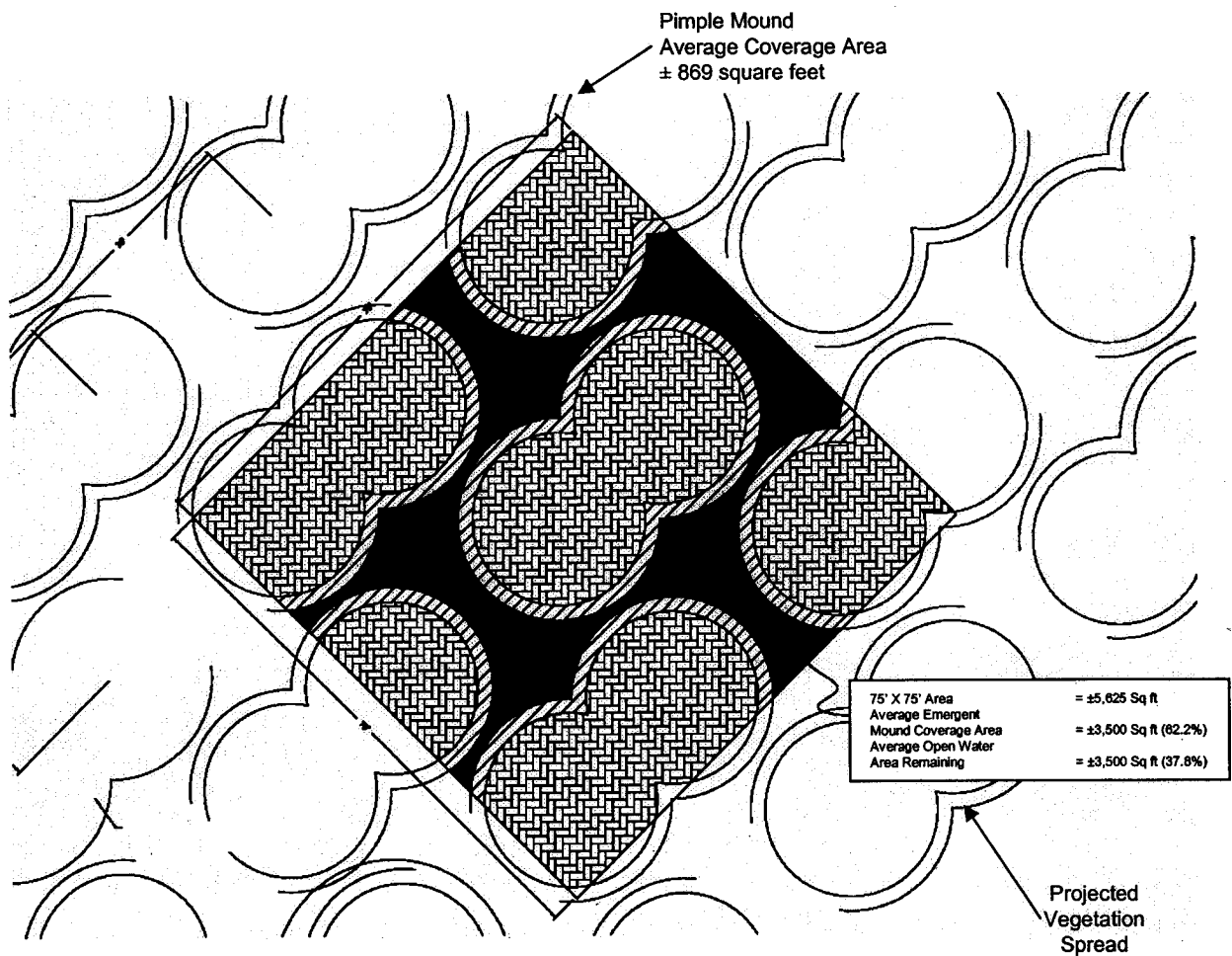
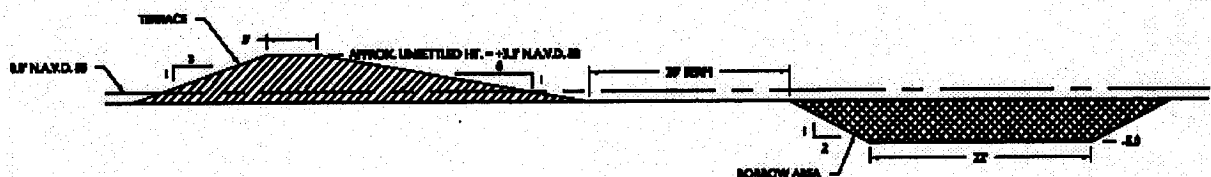


Exhibit E:
ORS Estuarine Marsh Complex construction design drawing



TYPICAL SECTION OF PROPOSED SPOIL MOUND



TYPICAL SECTION OF PROPOSED TERRACE

Exhibit E(i):

ORS Estuarine Marsh Complex construction design drawing – Detail of “Pimple Mounds”

Minimum plants for use in Old River South and Coastal Wet Prairie Restoration Projects:

Plants of Coastal Wet Prairie

Common Name	Scientific Name	Salt tolerance	Planting Method
Gulf Cord Grass	<i>Spartinae spartinae</i>	0 ppt to 18 ppt	Transplant individual plants with rhizomes (either plugs or bare root); Seed
Wiregrass, Marshhay Cordgrass	<i>Spartina patens</i>	0 ppt and above	Transplant individual plants with rhizomes (either plugs or bare root);
Wild millet	<i>Echinochloa walteri</i>	0 to 3.5 ppt	Seed

Plants of Old River South

Common Name	Scientific Name	Salt tolerance	Planting Method
California Bulrush	<i>Scirpus californicus</i>	0 to 3.5 ppt	Transplant individual plants with rhizomes (either plugs or bare root);
Wiregrass, Marshhay Cordgrass	<i>Spartina patens</i>	0 ppt and above	Transplant individual plants with rhizomes (either plugs or bare root);
Oystergrass, Smooth cordgrass	<i>Spartina alterniflora</i> (Sabine Basin ecotype and cv. Vermillion)	10 ppt and higher	Transplant individual plants with rhizomes (either plugs or bare root); Seed

Exhibit F:

Old River South Wetland Restoration Project , List of acceptable plant species

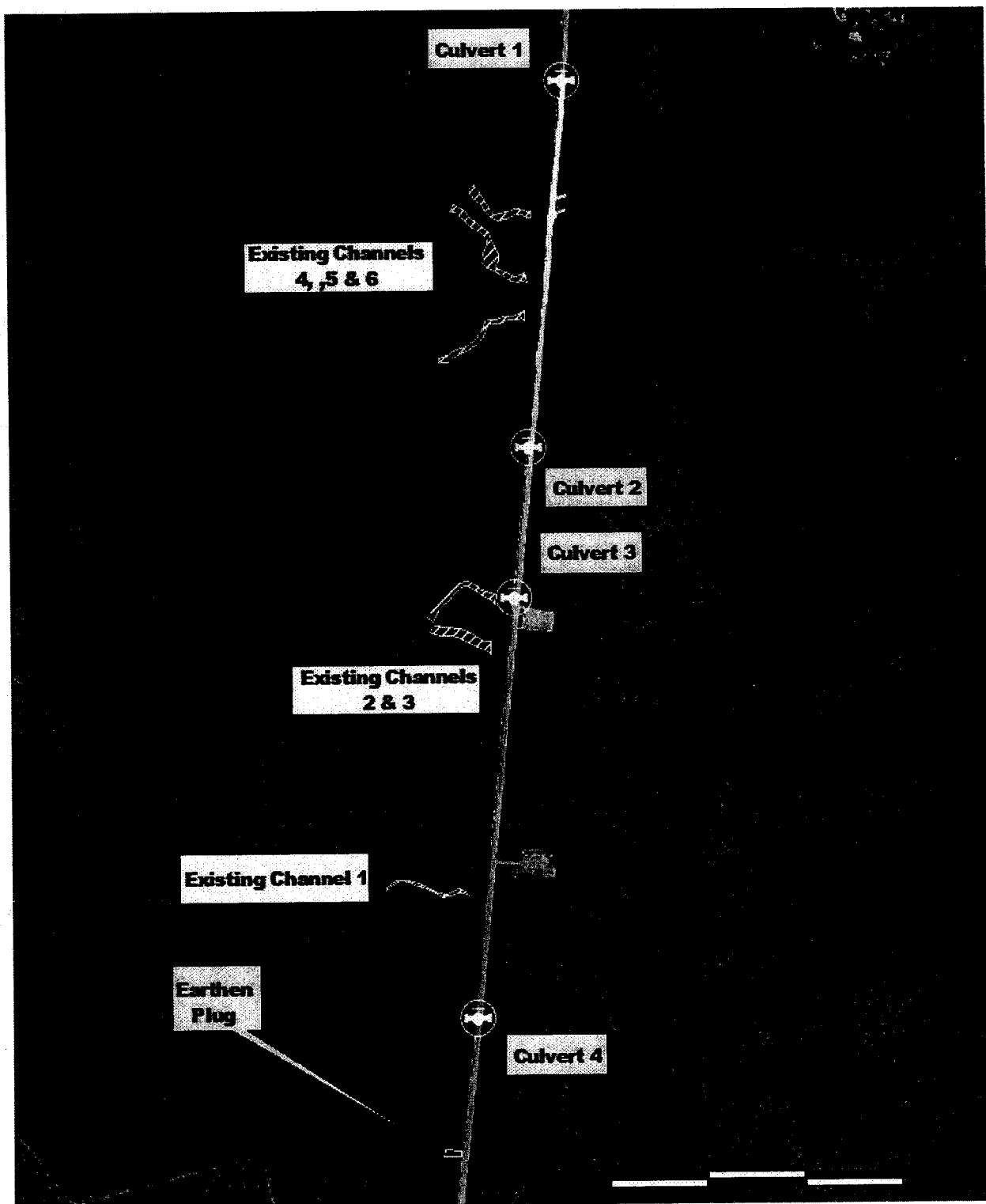


Exhibit G:

Existing Natural Channels and new culvert locations between the ORS Restoration Project and the historic Old River Bayou Wetland

VEGETATION CORRECTIVE ACTION PLAN FORM

Species Planted:

Description and Type of Transplant, e.g. plugs, sprigs, pots:

Number of Plants Used:

Density/Spacing of Planting:

Total Area, *i.e.* Square Feet, Planted:

Location of Plants in Restoration Project (can be described by marking on map of Restoration Project:

Beginning and Ending Planting Dates:

Exhibit H:

Vegetation Corrective Action Plan Form